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CLINICAL EFFECTS OF AN INTRAVENOUS AMINO ACID AND GLUCOSE SOLUTION WITH ELECTROLYTES IN NON SURGICAL GASTROINTESTINAL PATIENTS IN INTERNAL MEDICINE

Ari FS, Achmad F, Murdani A, Marcellus S, Dadang M, Chudahman M, Abdul AR, Daldijono

Department of Internal Medicine, Faculty of Medicine, Universitas Indonesia, Indonesia

Introduction:

The aim of this study was to assess the efficacy intravenous amino acid and glucose solution with electrolytes in non surgical gastrointestinal patients in the internal medicine ward.

Materials and methods:

The upper chamber contains amino acid solution and the lower chamber contains glucose and electrolytes administered via peripheral vein at a dosage of 1000 ml/day for a period of 1 week (7 days). Non operative gastroenterology patients with age between 16 to 65 years were eligible in this study if signed informed consent was obtained; patients who were excluded: diabetes mellitus, had severe hepatic or renal dysfunction, had hyperkalemia, hypercalcemia, hypermagnesemia, or hyperphosphataemia, and had body weight greater than 130% of ideal body weight (obesity). The data were analyzed by paired T-test and Mc Nemar test using SPSS ver.16.

Results:

Fifteen patients were recruited; they consisted of 7 (46.7%) male and 8 (53.3%) female, mean+SD age was 38.47+14.73 years (17-61 years). The mean+SD of Body Mass Index (BMI) at screening was 14.50+2.11 Kg/m² (11.41-18.22 Kg/m²). The increase in BMI in day -1, day-3, day-7 were 14,5; 14,58; 14,80 kg/M², respectively (p<0.05). The increment (pre vs post) of prealbumin, albumin, 2 transferin, and total protein were 7.293 vs 11.160; p=0.018; 2.713 g/dL vs 3.120 g/dL; p=0.024; 102.373 vs 141.951; p=0.016; 6.240 g/dL vs 6.853 g/dL; p=0.019, respectively. The decrease in clinical symptoms (pre vs post) i.e. nausea and weakness were 53.3% vs. 6.7%, p=0.016 and 66.7% vs. 6.7% p=0.004.

Conclusion:

Total parenteral nutrition solution was effective to improve the clinical nutrition parameters.

Keywords:

intravenous amino acid, glucose solution, non surgical gastrointestinal